

IN THE UNITED STATES PATENT & TRADEMARK OFFICE

IN RE APPLICATION OF

•

: EXAMINER: LE, HOA VAN

SERIAL NO: 10/079,873

FILED: FEBRUARY 22, 2002

HIROMITSU TANAKA, ET AL.

: GROUP ART UNIT: 1752

FOR: PROCESS FOR PRODUCING A MODIFIED ELECTROLYTE AND THE

MODIFIED ELECTROLYTE

RESPONSE TO ELECTION OF SPECIES REQUIREMENT

COMMISSIONER FOR PATENTS ALEXANDRIA, VIRGINIA 22313

SIR:

In response to the Election Requirement mailed March 24, 2004, Applicants elect with traverse, the following species for examination purposes only. Claims 1-20 read on the elected species. Applicants elect with traverse the following solid polymer electrolyte for examination purposes only:

$$\begin{array}{c}
-(CF_2-CF_2)_{a} & (CF_2-CF)_{b} \\
0 & | \\
CF_2 & | \\
CF-CF_3 & | \\
0 & | \\
CF_2 & | \\
CF_2$$

Applicants also elect <u>with traverse</u> ammonia (NH₃) for the chemical modifying electrolyte compound (amine compound), for examination purposes only. Applicants elect <u>with traverse</u> trimethylamine for the chemical base, for examination purposes only. Applications also elect <u>with traverse</u> the following crosslinking group, -O₂S-NH-SO₂-, for examination purposes only.

To assist the Examiner, Applicants direct the Examiner's attention to Examples 16-22 (pages 55-56) and pages 14, 15, 17-19 and 46 of the specification, in which some exemplary embodiments of the elected species are provided. Although not required for the election, Applicants note that the above elected species can result in the following modified electrolyte:

$$-(CF_{2}-CF_{2}) - (CF_{2}-CF) - (CF_{2}-CF) - (CF_{2}-CF) - (CF_{2}-CF_{3}) - (CF_{2}-CF_{3}) - (CF_{2}-CF_{3}) - (CF_{2}-CF_{3}) - (CF_{2}-CF_{2}-CF_{2}-CF_{2}-CF_{2}-CF_{2}-CF_{3}) - (CF_{2}-CF_{3}-CF_{2}-CF_{3}-CF_{3}-CF_{2}-CF_{3}-CF_{2}-CF_{3}-CF_{3}-CF_{2}-CF_{3}-CF_{3}-CF_{2}-CF_{3}-CF_{2}-CF_{3}-CF_{2}-CF_{3}-CF_{2}-CF_{3}-CF_{3}-CF_{2}-CF_{3}-CF_{2}-CF_{3}-CF_{2}-CF_{3}-CF_{2}-CF_{3}-CF_{3}-CF_{2}-CF_{3}-CF_{2}-CF_{3}-CF_{2}-CF_{3}-CF_{2}-CF_{3}-CF_{2}-CF_{3}-CF_{2}-CF_{3}-CF_{2}-CF_{3}-CF_{2}-CF_{3}-CF_{2}-CF_{3}-CF_{2}-CF_{3}-CF_{2}-CF_{3}-CF_{2}-CF_{3}-CF_{2}-CF_{3}-CF_{2}-CF_{3}-CF_{2}-CF_{3}-CF_{2}-CF_{3}-CF_{2}-CF_{3}-CF_{2}-CF_{3}-CF_{3}-CF_{2}-CF_{3}-CF_{2}-CF_{3}-CF_{2}-CF_{3}-CF_{2}-CF_{3}-CF_{3}-CF_{2}-CF_{3}-CF_{2}-CF_{3}-CF_{2}-CF_{3}-CF_{2}-CF_{3}-CF_{3}-CF_{2}-CF_{3}-CF_{2}-CF_{3}-CF_{2}-CF_{3}-CF_{2}-CF_{3}-CF_{3}-CF_{2}-CF_{3}-CF_{2}-CF_{3}-CF_{2}-CF_{3}-CF_{2}-CF_{3}-CF_{2}-CF_{3}-CF_{2}-CF_{3}-CF_{2}-CF_{3}-CF_{2}-CF_{3}-CF_{2}-CF$$